

**ABSTRACT**

The present invention relates to a monofilament suture prepared by co-extruding polymers having different Young's moduli and to a process for preparing the same. The suture is prepared in such a form that a polymer having a high Young's modulus surrounds a polymer having a low Young's modulus. The monofilament suture prepared by the present invention has excellent knot security, flexibility and/or knot strength.